Amendments to the Claims

Claim 1 (Original): A surface mount flipchip capacitor comprising:

a wire having opposite first and second end surfaces and upper and lower face surfaces;

a conductive powder element electrically connected to the wire and covering a portion of the wire upper face surface;

insulative material surrounding at least a portion of the conductive powder element and a portion of the wire upper face surface;

a first terminal formed by a first body of conductive material disposed to the first end surface of the wire and a portion of the insulating material; and

a second terminal formed by a second body of conductive material disposed over and being electrically connected to the upper end of the conductive powder element.

Claim 2 (Original): The surface mount flipchip capacitor of claim 1 wherein the first terminal is an anode end and the second terminal is a cathode end.

Claim 3 (Original): The surface mount flipchip capacitor of claim 1 wherein the conductive powder element is made of powder.

Claim 4 (Original): The surface mount flipchip capacitor of claim 3 wherein the powder is from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 5 (Original): The surface mount flipchip capacitor of claim 3 wherein the powder is a substrate of a metal from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 6 (Original): The surface mount flipchip capacitor of claim 3 wherein the powder has been electrophoretically deposited upon the wire.

Claim 7 (Original): The surface mount flipchip capacitor of claim 1 wherein the conductive powder element has a density between 3-8 g/cc.

Claim 8 (Original): The surface mount flipchip capacitor of claim 1 wherein the conductive powder element has a capacitance-voltage between 10 CV and 150 KCV.

Claim 9 (Original): The surface mount flipchip capacitor of claim 1 wherein the wire is a parallelepiped.

Claim 10 (Withdrawn): A method of creating a surface mount flipchip capacitor comprising:

providing a wire having opposite first and second end surfaces and upper and lower face surfaces;

forming a conductive powder element upon the wire covering a portion of the face surface, the conductive powder element having a cathode end, an anode end, and conductive powder element sides extending between the anode and cathode ends;

applying an insulation material over the conductive powder element to create a layer of the insulation material exterior of, and in covering relation over the cathode end and the conductive powder element sides, whereby the conductive wire extends below and has a protruding wire portion extending beyond an exterior surface of the layer of insulation material;

applying an anode layer of conductive material over the wire first end and a portion of the exterior surface of the insulation material so that the anode layer of conductive material is in electrical contact with and covers the wire end, whereby electrical continuity is achieved from the anode end of the conductive powder element, through the wire to the anode layer of conductive material;

applying a cathode layer of conductive material over at least a portion of the cathode end of the conductive powder element approximately level with the anode layer of conductive material and in electrical contact with, the cathode end of the conductive powder element.

Claim 11 (Withdrawn): The method of claim 10 further comprising the step arranging the wire for acceptance into a reel to reel process.

Claim 12 (Withdrawn): The method of claim 11 further comprising the step masking the foil for application of a powder onto the wire.

Claim 13 (Withdrawn): The method of claim 12 further comprising electrophoretically depositing the powder upon the wire.

Claim 14 (Withdrawn): The method of claim 13 wherein the powder is from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 15 (Withdrawn). The method of claim 13 wherein the powder is a substrate of a metal from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 16 (Withdrawn): The method of claim 13 wherein the conductive powder element has a density between 3-8 g/cc.

Claim 17 (Withdrawn) : The method of claim 13 wherein the conductive powder element has a capacitance-voltage between 10 CV and 150 KCV.

Claim 18 (Withdrawn): The method of claim 10 further comprising the step opening an area through the insulation material to permit the cathode layer of conductive material to contact the cathode end of the conductive powder element.

Claim 19 (New): A surface mount flipchip capacitor comprising:
a wire having opposite first and second end surfaces and upper and lower face surfaces;
a conductive powder element upon the wire covering a portion of the upper face surface, the conductive powder element having a cathode end, an anode end, and conductive powder element sides extending between the anode and cathode ends;

a layer of insulation material exterior of, and in covering relation over the cathode end and the conductive powder element sides, whereby the wire extends below and has a protruding wire portion extending beyond an exterior surface of the layer of insulation material;

an anode layer of conductive material over the wire first end and a portion of the exterior surface of the insulation material so that the anode layer of conductive material is in electrical contact with the wire first end, whereby electrical continuity is achieved from the anode end of the conductive powder element, through the wire to the anode layer of conductive material;

a cathode layer of conductive material over at least a portion of the cathode end of the conductive powder element approximately level with the anode layer of conductive material and in electrical contact with, the cathode end of the conductive powder element.

Claim 20 (New): The surface mount flipchip capacitor of claim 19 wherein the conductive powder element is made of electrophoretically deposited powder.

Claim 21 (New): The surface mount flipchip capacitor of claim 20 wherein the powder is from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 22 (New): The surface mount flipchip capacitor of claim 20 wherein the powder is a substrate of a metal from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 23 (New): The surface mount flipchip capacitor of claim 19 wherein the conductive powder element has a density between 3-8 g/cc.

Claim 24 (New): The surface mount flipchip capacitor of claim 19 wherein the conductive powder element has a capacitance-voltage between 10 CV and 150 KCV.

Claim 25 (New): The surface mount flipchip capacitor of claim 19 wherein the wire is a parallelepiped.

Claim 26 (New): The surface mount flipchip capacitor of claim 19 wherein the wire is a foil sheet portion.

Claim 27 (New): A series of surface mount flipchip capacitors comprising:

a foil having opposite first and second end surfaces and upper and lower face surfaces;

a plurality of conductive powder elements that have been electrophoretically deposited upon the foil;

the conductive powder elements spaced apart from each other and covering a portion of the upper face surface;

each conductive powder element having;

a cathode end, an anode end, and sides extending between the anode and cathode ends;

a layer of insulation material exterior of, and in covering relation over the cathode end and sides, whereby the foil extends below and has a protruding foil portion extending beyond an exterior surface of the layer of insulation material;

an anode layer of conductive material over the foil first end and a portion of the exterior surface of the insulation material so that the anode layer of conductive material is in electrical contact the foil first end, whereby electrical continuity is achieved from the anode end of the conductive powder element, through the foil to the anode layer of conductive material;

a cathode layer of conductive material over at least a portion of the cathode end of the conductive powder element approximately level with the anode layer of conductive material and in electrical contact with, the cathode end of the conductive powder element.

Claim 28 (New): The series of surface mount flipchip capacitors of claim 27 further comprising a cut point in the layer of insulation adjacent the anode layer to form an individual surface mount flipchip capacitor.

Claim 29 (New): The series of surface mount flipchip capacitors of claim 27 wherein the powder is from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 30 (New): The series of surface mount flipchip capacitors of claim 27 wherein the powder is a substrate of a metal from the group consisting of: Ta, Nb, Hf, Zr, Ti, V, W, Be, and Al.

Claim 31 (New): The series of surface mount flipchip capacitors of claim 27 wherein the conductive powder element has a density between 3-8 g/cc.

Claim 32 (New): The series of surface mount flipchip capacitors of claim 27 wherein the conductive powder element has a capacitance-voltage between 10 CV and 150 KCV.